IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(Currently Amended) A method for providing bi-state power operation of a HID lamp system comprising the acts of:

determining a power mode control selection;

~~determining a modulation~~ producing a first modulation signal and a second modulation signal for enabling a driver circuit to generate a driving signal based on the determined power mode control selection;

generating ~~a~~ the driving signal ~~based on the determined modulation~~; and

applying the generated driving signal to the HID lamp;

wherein the first modulation signal and the second modulation signal comprise square wave signals alternated with a zero signal, and wherein the first and second modulation signals are applied to

the driver circuit to generate a low frequency drive signal.

2.(Original) The method of claim 1 wherein the power mode control is selectable between a high power mode and a reduced power mode.

3.(Currently Amended) The method of claim 1 wherein the generated ~~driving signal is a~~ low-frequency square wave is responsive to determining a high power mode control selection.

4.(Original) The method of claim 1 wherein the generated driving signal is a high-frequency square wave responsive to determining a low power mode control selection.

5.(Currently Amended) The method of claim 1 wherein determining a power mode selection includes determining a power mode transition point for switching between ~~the~~ a high power mode and ~~the~~ a low power mode.

6.(Original) The method of claim 5 wherein the power mode

transition point is selectable.

7.(Original) The method of claim 5 wherein the power mode transition point is variable.

8.(Currently Amended) The method of claim 1 ~~the driving signal is generated using an HBCF~~ wherein the driver circuit is half-bridge-commutating-forward circuit.

Claim 9 (Canceled)

10.(Currently Amended) ~~The method of claim 9~~A method for providing bi-state power operation of a HID lamp system comprising the acts of:

determining a power mode control selection;

producing a first modulation signal and a second modulation signal for enabling a driver circuit to generate a driving signal based on the determined power mode control selection;

generating the driving signal;

applying the generated driving signal to the HID lamp;

wherein the first modulation signal and the second modulation signal comprise ~~high-frequency~~ square wave signals having the same frequency but opposite phase and wherein the first and second modulation signals are simultaneously applied to the ~~HBCF~~ driver circuit to generate a high-frequency drive signal.

Claim 11 (Canceled)

12. (Currently Amended) A computer readable medium having computer executable instructions for providing bi-state power operation of a HID lamp system comprising:

computer readable code for determining a power mode control selection; and

computer readable code for ~~determining a modulation to generate a driving signal based on the determined power mode control selection~~ producing a first modulation signal and a second modulation signal for enabling a driver circuit to generate a driving signal based on the determined power mode control selection;

wherein the first modulation signal and the second modulation

signal comprise at least one of square wave signals alternated with zero signal for generating a low frequency drive signal, and square wave signals having the same frequency but opposite phase for generating a high frequency drive signal.

13.(Original) The computer readable medium of claim 12 wherein the power mode control is selectable between a full output power HID lamp operation and a reduced output power HID lamp operation.

14.(Currently Amended) The computer readable medium of claim 12 wherein determining a power mode selection includes determining a power mode transition point for switching between ~~the~~ a high power mode and ~~the~~ a low power mode.

15.(Original) The computer readable medium of claim 14 wherein the power mode transition point is variable.

16.(Currently Amended) The computer readable medium of claim 12 wherein the ~~modulation includes a low-frequency periodic~~ low

frequency drive signal is generated when the HID lamp is selectably operated at full power and wherein the ~~modulation includes a high-frequency periodic~~ high frequency drive signal is generated when the HID lamp is selectably operated at reduced power.

17. (Currently Amended) The computer readable medium of claim 12 wherein ~~the low-frequency periodic~~ at least one of the low frequency drive signal and the high frequency drive signal comprises a square wave.

Claim 18 (Canceled)

19. (Currently Amended) A system to provide bi-state power operation of an HID lamp system comprising:

means for determining a power mode control selection wherein a high power mode and a low power mode are selectable; and

means for ~~determining a modulation~~ producing a first modulation signal and a second modulation signal for enabling a driver circuit to generate a driving signal based on the determined power mode control selection;

wherein the first modulation signal and the second modulation signal comprise at least one of square wave signals alternated with zero signal for generating a low frequency drive signal, and square wave signals having the same frequency but opposite phase for generating a high frequency drive signal.

20. (New) The system of claim 19, wherein the driver circuit is a half-bridge-commutating-forward circuit.

21. (New) A system to provide bi-state power operation of an HID lamp system comprising:

a power mode selector for selecting a high power mode and a low power mode; and

a driver circuit configured to produce a first modulation signal and a second modulation signal for generating a driving signal based on the selected power mode;

wherein the first modulation signal and the second modulation signal comprise at least one of square wave signals alternated with zero signal for generating a low frequency drive signal, and square wave signals having the same frequency but opposite phase for

generating a high frequency drive signal.

22.(New) The system of claim 21, wherein the low frequency drive signal is generated in the high power mode and the high frequency drive signal is generated in the low power mode.